SEQUENCE LISTING

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SEDGWICK, Jonathan D.

<120> OX2 RECEPTOR HOMOLOGS (AS AMENDED)

<130> 140942000900

<140> US 10/009,445
<141> 2001-11-13

<150> PCT US00/12998
<151> 2000-05-11

<150> GB 9925989.7
<151> 1999-11-03

<150> GB 9911123.9
<151> 1999-05-13

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rattus rattus

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Met Leu Cys Phe Trp Arg Thr Ser
-20

cac gta gca gta ctc ttg atc tgg ggg gtc ttc gcg gct gag tca agt 162
His Val Ala Val Leu Leu Ile Trp Gly Val Phe Ala Ala Glu Ser Ser
-15 -10 -5 -1

tgt cct gat aag aat caa aca atg cag aac aat tca tca act atg aca 210
Cys Pro Asp Lys Asn Gln Thr Met Gln Asn Asn Ser Ser Thr Met Thr

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Cys Pro Asp Lys Asn Gln Thr Met Gln Asn Asn Ser Ser Thr Met Thr
 1               5                  10                  15

gaa gtt aac act aca gtg ttt gta cag atg ggt aaa aag gct ctg ctc   258
Glu Val Asn Thr Thr Val Phe Val Gln Met Gly Lys Lys Ala Leu Leu
            20                  25                  30

tgc tgc cct tct att tca ctg aca aaa gta ata tta ata aca tgg aca   306
Cys Cys Pro Ser Ile Ser Leu Thr Lys Val Ile Leu Ile Thr Trp Thr
        35                  40                  45

ata acc ctc aga gga cag cct tcc tgc ata ata tcc tac aaa gca gac   354
Ile Thr Leu Arg Gly Gln Pro Ser Cys Ile Ile Ser Tyr Lys Ala Asp
    50                  55                  60

aca agg gag acc cat gaa agc aac tgc tcg gac aga agc atc acc tgg   402
Thr Arg Glu Thr His Glu Ser Asn Cys Ser Asp Arg Ser Ile Thr Trp
65                  70                  75                  80

gcc tcc aca cct gac ctc gct cct gac ctt cag atc agt gca gtg gcc   450
Ala Ser Thr Pro Asp Leu Ala Pro Asp Leu Gln Ile Ser Ala Val Ala
                85                  90                  95

ctc cag cat gaa ggg cgt tac tca tgt gat ata gca gta cct gac ggg   498
Leu Gln His Glu Gly Arg Tyr Ser Cys Asp Ile Ala Val Pro Asp Gly
            100                 105                 110

aat ttc caa aac atc tat gac ctc caa gtg ctg gtg ccc cct gaa gta   546
Asn Phe Gln Asn Ile Tyr Asp Leu Gln Val Leu Val Pro Pro Glu Val
        115                 120                 125

acc cac ttt cca ggg gaa aat aga act gca gtt tgt gag gcg att gca   594
Thr His Phe Pro Gly Glu Asn Arg Thr Ala Val Cys Glu Ala Ile Ala
    130                 135                 140

ggc aaa cct gct gcg cag atc tct tgg acg cca gat ggg gat tgt gtc   642
Gly Lys Pro Ala Ala Gln Ile Ser Trp Thr Pro Asp Gly Asp Cys Val
145                 150                 155                 160

gct aag aat gaa tca cac agc aat ggc acc gtg act gtc cgg agc aca   690
Ala Lys Asn Glu Ser His Ser Asn Gly Thr Val Thr Val Arg Ser Thr
                165                 170                 175

tgc cac tgg gag cag agc cac gtg tct gtc gtg ttc tgt gtt gtc tct   738
Cys His Trp Glu Gln Ser His Val Ser Val Val Phe Cys Val Val Ser
            180                 185                 190

cac ttg aca act ggt aac cag tct ctg tct ata gaa ctg ggt aga ggg   786
His Leu Thr Thr Gly Asn Gln Ser Leu Ser Ile Glu Leu Gly Arg Gly
        195                 200                 205

ggt gac caa tta tta gga tca tac att caa tac atc atc cca tct att   834
Gly Asp Gln Leu Leu Gly Ser Tyr Ile Gln Tyr Ile Ile Pro Ser Ile
    210                 215                 220

att att ttg atc atc ata gga tgc att tgt ctt ttg aaa atc agt ggc   882
Ile Ile Leu Ile Ile Ile Gly Cys Ile Cys Leu Leu Lys Ile Ser Gly
225                 230                 235                 240

tgc aga aaa tgt aaa ttg cca aaa tcg gga gct act cca gat att gag   930
Cys Arg Lys Cys Lys Leu Pro Lys Ser Gly Ala Thr Pro Asp Ile Glu
                245                 250                 255

gag gat gaa atg cag ccg tat gct agc tac aca gag aag agc aat cca   978
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Glu Asp Glu Met Gln Pro Tyr Ala Ser Tyr Thr Glu Lys Ser Asn Pro
            260                 265                 270

ctc tat gat act gtg acc acg acg gag gca cac cca gcg tca caa ggc   1026
Leu Tyr Asp Thr Val Thr Thr Thr Glu Ala His Pro Ala Ser Gln Gly
        275                 280                 285

aaa gtc aat ggc aca gac tgt ctt act ttg tca gcc atg gga atc       1071
Lys Val Asn Gly Thr Asp Cys Leu Thr Leu Ser Ala Met Gly Ile
    290                 295                 300

tagaaccaag gaaaagaagt caagagacat cataattact gcttttcttt ctttaaactt 1131

ctccaatgga gggaaattag ctcttctgaa gttcttagaa agcacaaatg ttctaatgga 1191

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tatggtatgt gtgtgccttt atatgtttgt ttacaaatgt gtatatatgc acacatctga 1491

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            -5              -1   1                5

Gln Asn Asn Ser Ser Thr Met Thr Glu Val Asn Thr Thr Val Phe Val
     10                  15                  20

Gln Met Gly Lys Lys Ala Leu Leu Cys Cys Pro Ser Ile Ser Leu Thr
 25                  30                  35                  40

Lys Val Ile Leu Ile Thr Trp Thr Ile Thr Leu Arg Gly Gln Pro Ser
                45                  50                  55

Cys Ile Ile Ser Tyr Lys Ala Asp Thr Arg Glu Thr His Glu Ser Asn
            60                  65                  70

Cys Ser Asp Arg Ser Ile Thr Trp Ala Ser Thr Pro Asp Leu Ala Pro
        75                  80                  85

Asp Leu Gln Ile Ser Ala Val Ala Leu Gln His Glu Gly Arg Tyr Ser
     90                  95                  100

Cys Asp Ile Ala Val Pro Asp Gly Asn Phe Gln Asn Ile Tyr Asp Leu
105                 110                 115                 120
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```
Gln Val Leu Val Pro Pro Glu Val Thr His Phe Pro Gly Glu Asn Arg
                125                 130                 135

Thr Ala Val Cys Glu Ala Ile Ala Gly Lys Pro Ala Ala Gln Ile Ser
            140                 145                 150

Trp Thr Pro Asp Gly Asp Cys Val Ala Lys Asn Glu Ser His Ser Asn
        155                 160                 165

Gly Thr Val Thr Val Arg Ser Thr Cys His Trp Glu Gln Ser His Val
    170                 175                 180

Ser Val Val Phe Cys Val Val Ser His Leu Thr Thr Gly Asn Gln Ser
185                 190                 195                 200

Leu Ser Ile Glu Leu Gly Arg Gly Gly Asp Gln Leu Leu Gly Ser Tyr
                205                 210                 215

Ile Gln Tyr Ile Ile Pro Ser Ile Ile Ile Leu Ile Ile Ile Gly Cys
            220                 225                 230

Ile Cys Leu Leu Lys Ile Ser Gly Cys Arg Lys Cys Lys Leu Pro Lys
        235                 240                 245

Ser Gly Ala Thr Pro Asp Ile Glu Glu Asp Glu Met Gln Pro Tyr Ala
    250                 255                 260

Ser Tyr Thr Glu Lys Ser Asn Pro Leu Tyr Asp Thr Val Thr Thr Thr
265                 270                 275                 280

Glu Ala His Pro Ala Ser Gln Gly Lys Val Asn Gly Thr Asp Cys Leu
                285                 290                 295

Thr Leu Ser Ala Met Gly Ile
            300
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<211> 1604
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<213> Unknown

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homo sapiens

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aagttgacca gagagggtct caccatgcgc acagttcctt ctgtaccagt gtggaggaaa 180

agtactgagt gaagggcaga aaaagagaaa acagaa atg ctc tgc cct tgg aga 234
Met Leu Cys Pro Trp Arg
-25

```
act gct aac cta ggg cta ctg ttg att ttg act atc ttc tta gtg gcc   282
Thr Ala Asn Leu Gly Leu Leu Leu Ile Leu Thr Ile Phe Leu Val Ala
-20                 -15                 -10                 -5

gaa gcg gag ggt gct gct caa cca aac aac tca tta atg ctg caa act   330
Glu Ala Glu Gly Ala Ala Gln Pro Asn Asn Ser Leu Met Leu Gln Thr
            -1   1                5                  10

agc aag gag aat cat gct tta gct tca agc agt tta tgt atg gat gaa   378
Ser Lys Glu Asn His Ala Leu Ala Ser Ser Ser Leu Cys Met Asp Glu
        15                  20                  25

aaa cag att aca cag aac tac tcg aaa gta ctc gca gaa gtt aac act   426
Lys Gln Ile Thr Gln Asn Tyr Ser Lys Val Leu Ala Glu Val Asn Thr
    30                  35                  40

tca tgg cct gta aag atg gct aca aat gct gtg ctt tgt tgc cct cct   474
Ser Trp Pro Val Lys Met Ala Thr Asn Ala Val Leu Cys Cys Pro Pro
45                  50                  55                  60

atc gca tta aga aat ttg atc ata ata aca tgg gaa ata atc ctg aga   522
Ile Ala Leu Arg Asn Leu Ile Ile Ile Thr Trp Glu Ile Ile Leu Arg
                65                  70                  75

ggc cag cct tcc tgc aca aaa gcc tac aag aaa gaa aca aat gag acc   570
Gly Gln Pro Ser Cys Thr Lys Ala Tyr Lys Lys Glu Thr Asn Glu Thr
            80                  85                  90

aag gaa acc aac tgt act gat gag aga ata acc tgg gtc tcc aga cct   618
Lys Glu Thr Asn Cys Thr Asp Glu Arg Ile Thr Trp Val Ser Arg Pro
        95                  100                 105

gat cag aat tcg gac ctt cag att cgt acc gtg gcc atc act cat gac   666
Asp Gln Asn Ser Asp Leu Gln Ile Arg Thr Val Ala Ile Thr His Asp
    110                 115                 120

ggg tat tac aga tgc ata atg gta aca cct gat ggg aat ttc cat cgt   714
Gly Tyr Tyr Arg Cys Ile Met Val Thr Pro Asp Gly Asn Phe His Arg
125                 130                 135                 140

gga tat cac ctc caa gtg tta gtt aca cct gaa gtg acc ctg ttt caa   762
Gly Tyr His Leu Gln Val Leu Val Thr Pro Glu Val Thr Leu Phe Gln
                145                 150                 155

aac agg aat aga act gca gta tgc aag gca gtt gca ggg aag cca gct   810
Asn Arg Asn Arg Thr Ala Val Cys Lys Ala Val Ala Gly Lys Pro Ala
            160                 165                 170

gcg cat atc tcc tgg atc cca gag ggc gat tgt gcc act aag caa gaa   858
Ala His Ile Ser Trp Ile Pro Glu Gly Asp Cys Ala Thr Lys Gln Glu
        175                 180                 185

tac tgg agc aat ggc aca gtg act gtt aag agt aca tgc cac tgg gag   906
Tyr Trp Ser Asn Gly Thr Val Thr Val Lys Ser Thr Cys His Trp Glu
    190                 195                 200

gtc cac aat gtg tct acc gtg acc tgc cac gtc tcc cat ttg act ggc   954
Val His Asn Val Ser Thr Val Thr Cys His Val Ser His Leu Thr Gly
205                 210                 215                 220

aac aag agt ctg tac ata gag cta ctt cct gtt cca ggt gcc aaa aaa   1002
Asn Lys Ser Leu Tyr Ile Glu Leu Leu Pro Val Pro Gly Ala Lys Lys
                225                 230                 235
```

```
atc agc aaa att ata tat tcc ata tat cat cct tac tat tat tat tta   1050
Ile Ser Lys Ile Ile Tyr Ser Ile Tyr His Pro Tyr Tyr Tyr Tyr Leu
            240                 245                 250

gac cat cgt ggg att cat ttg gtt gtt gaa agt caa tgg ctg cag aaa   1098
Asp His Arg Gly Ile His Leu Val Val Glu Ser Gln Trp Leu Gln Lys
        255                 260                 265

ata taaattgaat aaaacagaat ctactccagt tgttgaggag gatgaaatgc        1151
Ile

agccctatgc cagctacaca gagaagaaca atcctctcta tgatactaca aacaaggtga 1211

aggcatctga ggcattacaa agtgaagttg acacagacct ccatacttta taagttgttg 1271

gactctagta ccaagaaaca acaacaaacg agatacatta taattactgt ctgattttct 1331

tacagttcta gaatgaagac ttatattgaa attaggtttt ccaaggttct tagaagacat 1391

tttaatggat tctcattcat acccttgtat aattggaatt tttgattctt agctgctacc 1451

agctagttct ctgaagaact gatgttatta caaagaaaat acatgcccat gaccaaatat 1511

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-10                 -5                  -1   1                   5

Ser Leu Met Leu Gln Thr Ser Lys Glu Asn His Ala Leu Ala Ser Ser
            10                  15                  20

Ser Leu Cys Met Asp Glu Lys Gln Ile Thr Gln Asn Tyr Ser Lys Val
        25                  30                  35

Leu Ala Glu Val Asn Thr Ser Trp Pro Val Lys Met Ala Thr Asn Ala
    40                  45                  50

Val Leu Cys Cys Pro Pro Ile Ala Leu Arg Asn Leu Ile Ile Ile Thr
55                  60                  65                  70

Trp Glu Ile Ile Leu Arg Gly Gln Pro Ser Cys Thr Lys Ala Tyr Lys
                75                  80                  85

Lys Glu Thr Asn Glu Thr Lys Glu Thr Asn Cys Thr Asp Glu Arg Ile
            90                  95                  100

Thr Trp Val Ser Arg Pro Asp Gln Asn Ser Asp Leu Gln Ile Arg Thr
        105                 110                 115

Val Ala Ile Thr His Asp Gly Tyr Tyr Arg Cys Ile Met Val Thr Pro
```

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    120                 125                 130

Asp Gly Asn Phe His Arg Gly Tyr His Leu Gln Val Leu Val Thr Pro
135                 140                 145                 150

Glu Val Thr Leu Phe Gln Asn Arg Asn Arg Thr Ala Val Cys Lys Ala
                155                 160                 165

Val Ala Gly Lys Pro Ala Ala His Ile Ser Trp Ile Pro Glu Gly Asp
            170                 175                 180

Cys Ala Thr Lys Gln Glu Tyr Trp Ser Asn Gly Thr Val Thr Val Lys
        185                 190                 195

Ser Thr Cys His Trp Glu Val His Asn Val Ser Thr Val Thr Cys His
    200                 205                 210

Val Ser His Leu Thr Gly Asn Lys Ser Leu Tyr Ile Glu Leu Leu Pro
215                 220                 225                 230

Val Pro Gly Ala Lys Lys Ile Ser Lys Ile Ile Tyr Ser Ile Tyr His
                235                 240                 245

Pro Tyr Tyr Tyr Tyr Leu Asp His Arg Gly Ile His Leu Val Val Glu
            250                 255                 260

Ser Gln Trp Leu Gln Lys Ile
        265
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mus musculus

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<222> (10)..(987)

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<222> (85)..(987)

<400> 5

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ata tgg ggg gtc ttt gtg gct ggg tca agt tgt act gat aag aat caa   99
Ile Trp Gly Val Phe Val Ala Gly Ser Ser Cys Thr Asp Lys Asn Gln
    -10                 -5                  -1   1                5

aca aca cag aac aac agt tca tct cct ctg aca caa gtg aac act aca   147
Thr Thr Gln Asn Asn Ser Ser Ser Pro Leu Thr Gln Val Asn Thr Thr
                  10                  15                  20

gtg tct gta cag ata ggt aca aag gct ctg ctc tgc tgc ttt tct att   195
Val Ser Val Gln Ile Gly Thr Lys Ala Leu Leu Cys Cys Phe Ser Ile
             25                  30                  35
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```
cca ctg aca aaa gca gta tta atc aca tgg ata ata aag ctc aga ggc   243
Pro Leu Thr Lys Ala Val Leu Ile Thr Trp Ile Ile Lys Leu Arg Gly
         40                  45                  50

ctg cca tcc tgc aca ata gca tac aaa gta gat aca aag acc aat gaa   291
Leu Pro Ser Cys Thr Ile Ala Tyr Lys Val Asp Thr Lys Thr Asn Glu
     55                  60                  65

acc agc tgc ttg ggc agg aac atc acc tgg gcc tcc aca cct gac cac   339
Thr Ser Cys Leu Gly Arg Asn Ile Thr Trp Ala Ser Thr Pro Asp His
 70                  75                  80                  85

agt cct gaa ctt cag atc agt gca gtg acc ctc cag cat gag ggg act   387
Ser Pro Glu Leu Gln Ile Ser Ala Val Thr Leu Gln His Glu Gly Thr
                 90                  95                 100

tac aca tgt gag aca gta aca cct gaa ggg aat ttt gaa aaa aac tat   435
Tyr Thr Cys Glu Thr Val Thr Pro Glu Gly Asn Phe Glu Lys Asn Tyr
            105                 110                 115

gac ctc caa gtg ctg gtg ccc cct gaa gta acc tac ttt cca gag aaa   483
Asp Leu Gln Val Leu Val Pro Pro Glu Val Thr Tyr Phe Pro Glu Lys
        120                 125                 130

aac aga tct gca gtc tgt gag gca atg gca ggc aag cct gct gca cag   531
Asn Arg Ser Ala Val Cys Glu Ala Met Ala Gly Lys Pro Ala Ala Gln
    135                 140                 145

atc tct tgg tct cca gat ggg gac tgt gtc act acg agt gaa tca cac   579
Ile Ser Trp Ser Pro Asp Gly Asp Cys Val Thr Thr Ser Glu Ser His
150                 155                 160                 165

agc aat ggc act gtg act gtc agg agc aca tgc cac tgg gag cag aac   627
Ser Asn Gly Thr Val Thr Val Arg Ser Thr Cys His Trp Glu Gln Asn
                170                 175                 180

aat gtg tct gat gtg tcc tgc att gtc tct cat ttg act ggt aac caa   675
Asn Val Ser Asp Val Ser Cys Ile Val Ser His Leu Thr Gly Asn Gln
            185                 190                 195

tct ctg tcc ata gaa ctg agt aga ggt ggt aac caa tca tta cga cca   723
Ser Leu Ser Ile Glu Leu Ser Arg Gly Gly Asn Gln Ser Leu Arg Pro
        200                 205                 210

tat att cca tac atc ata cca tca att atc att ttg atc atc ata gga   771
Tyr Ile Pro Tyr Ile Ile Pro Ser Ile Ile Ile Leu Ile Ile Ile Gly
    215                 220                 225

tgc att tgt ctt ttg aaa atc agt ggc ttc aga aaa tgc aaa ttg cca   819
Cys Ile Cys Leu Leu Lys Ile Ser Gly Phe Arg Lys Cys Lys Leu Pro
230                 235                 240                 245

aaa tta gaa gct act tca gct att gag gag gat gaa atg cag cct tat   867
Lys Leu Glu Ala Thr Ser Ala Ile Glu Glu Asp Glu Met Gln Pro Tyr
                250                 255                 260

gct agc tat aca gag aag agc aat cca ctc tat gat act gtg act aag   915
Ala Ser Tyr Thr Glu Lys Ser Asn Pro Leu Tyr Asp Thr Val Thr Lys
            265                 270                 275

gtg gag gca ttt cca gta tca caa ggc gaa gtc aat ggc aca gac tgc   963
Val Glu Ala Phe Pro Val Ser Gln Gly Glu Val Asn Gly Thr Asp Cys
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```
        280                 285                 290

ctt act ttg tcg gcc att gga atc tagaaccaag aaaaaagaag tcaagagaca  1017
Leu Thr Leu Ser Ala Ile Gly Ile
    295                 300

tcataattac tgctttgctt tctttaaaat tcgacaatgg aaggactact tggaaattag 1077

ctcttccaaa gctattaaaa agcacaaatg ttctaatgaa attgcattta aattctatca 1137

ttggaagttt ggaatctctg ctgctacctg ttaattttag gaagaactga tttaattatt 1197

acaaagaaag cacatggtta tggtgaaata tcaagttgtg caataaagta tgatgaaaac 1257

tgagtttcct caagaaataa ctgcaggagg aacaatcatc actaaagaat ttcatgtgag 1317

ttcttacaaa aaaattccta tgtatacatg actatggtat gtgtgtccaa ttacatgttt 1377

atttacaaat gtgtatatat gcacacattt gcttttcagg acatctcctt gtaaaaaaca 1437

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<212> PRT
<213> Unknown

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Met Phe Cys Phe Trp Arg Thr Ser Ala Leu Ala Val Leu Leu Ile Trp
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Gly Val Phe Val Ala Gly Ser Ser Cys Thr Asp Lys Asn Gln Thr Thr
                -5                  -1   1                  5

Gln Asn Asn Ser Ser Ser Pro Leu Thr Gln Val Asn Thr Thr Val Ser
         10                  15                  20

Val Gln Ile Gly Thr Lys Ala Leu Leu Cys Cys Phe Ser Ile Pro Leu
     25                  30                  35

Thr Lys Ala Val Leu Ile Thr Trp Ile Ile Lys Leu Arg Gly Leu Pro
 40                  45                  50                  55

Ser Cys Thr Ile Ala Tyr Lys Val Asp Thr Lys Thr Asn Glu Thr Ser
                60                  65                  70

Cys Leu Gly Arg Asn Ile Thr Trp Ala Ser Thr Pro Asp His Ser Pro
             75                  80                  85

Glu Leu Gln Ile Ser Ala Val Thr Leu Gln His Glu Gly Thr Tyr Thr
         90                  95                  100

Cys Glu Thr Val Thr Pro Glu Gly Asn Phe Glu Lys Asn Tyr Asp Leu
    105                 110                 115

Gln Val Leu Val Pro Pro Glu Val Thr Tyr Phe Pro Glu Lys Asn Arg
120                 125                 130                 135

Ser Ala Val Cys Glu Ala Met Ala Gly Lys Pro Ala Ala Gln Ile Ser
                140                 145                 150

Trp Ser Pro Asp Gly Asp Cys Val Thr Thr Ser Glu Ser His Ser Asn
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```
            155                 160                 165

Gly Thr Val Thr Val Arg Ser Thr Cys His Trp Glu Gln Asn Asn Val
        170                 175                 180

Ser Asp Val Ser Cys Ile Val Ser His Leu Thr Gly Asn Gln Ser Leu
    185                 190                 195

Ser Ile Glu Leu Ser Arg Gly Gly Asn Gln Ser Leu Arg Pro Tyr Ile
200                 205                 210                 215

Pro Tyr Ile Ile Pro Ser Ile Ile Ile Leu Ile Ile Ile Gly Cys Ile
                220                 225                 230

Cys Leu Leu Lys Ile Ser Gly Phe Arg Lys Cys Lys Leu Pro Lys Leu
            235                 240                 245

Glu Ala Thr Ser Ala Ile Glu Glu Asp Glu Met Gln Pro Tyr Ala Ser
        250                 255                 260

Tyr Thr Glu Lys Ser Asn Pro Leu Tyr Asp Thr Val Thr Lys Val Glu
    265                 270                 275

Ala Phe Pro Val Ser Gln Gly Glu Val Asn Gly Thr Asp Cys Leu Thr
280                 285                 290                 295

Leu Ser Ala Ile Gly Ile
                300
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<211> 1010
<212> DNA
<213> Unknown

<220>
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homo sapiens

<220>
<221> CDS

<222> (1)..(750)

<400> 7

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  1               5                  10                  15

ggt aac att tca cag cct gta ctg atg gat ata aat gct gtg ctt tgt   96
Gly Asn Ile Ser Gln Pro Val Leu Met Asp Ile Asn Ala Val Leu Cys
             20                  25                  30

tgc cct cct att gca tta aga aat ttg atc ata ata aca tgg gaa ata   144
Cys Pro Pro Ile Ala Leu Arg Asn Leu Ile Ile Ile Thr Trp Glu Ile
         35                  40                  45

atc ctg aga ggc cag cct tcc tgc aca aaa gcc tac aag aaa gaa aca   192
Ile Leu Arg Gly Gln Pro Ser Cys Thr Lys Ala Tyr Lys Lys Glu Thr
     50                  55                  60

aat gag acc aag gaa acc aac tgt act gtt gag aga ata acc tgg gtc   240
Asn Glu Thr Lys Glu Thr Asn Cys Thr Val Glu Arg Ile Thr Trp Val
 65                  70                  75                  80
```

```
tct aga cct gat cag aat tcg gac ctt cag att cgt ccg gtg gac acc   288
Ser Arg Pro Asp Gln Asn Ser Asp Leu Gln Ile Arg Pro Val Asp Thr
                85                  90                  95

act cat gac ggg tat tac aga ggc ata gtg gta aca cct gat ggg aat   336
Thr His Asp Gly Tyr Tyr Arg Gly Ile Val Val Thr Pro Asp Gly Asn
            100                 105                 110

ttc cat cgt gga tat cac ctc caa gtg tta gtt aca ccc gaa gtg aac   384
Phe His Arg Gly Tyr His Leu Gln Val Leu Val Thr Pro Glu Val Asn
        115                 120                 125

cta ttt caa agc agg aat ata act gca gta tgc aag gca gtt aca ggg   432
Leu Phe Gln Ser Arg Asn Ile Thr Ala Val Cys Lys Ala Val Thr Gly
    130                 135                 140

aag cca gct gcc cag atc tcc tgg atc cca gag gga tct att ctt gcc   480
Lys Pro Ala Ala Gln Ile Ser Trp Ile Pro Glu Gly Ser Ile Leu Ala
145                 150                 155                 160

act aag caa gaa tac tgg ggc aat ggc aca gtg acg gtt aag agt aca   528
Thr Lys Gln Glu Tyr Trp Gly Asn Gly Thr Val Thr Val Lys Ser Thr
                165                 170                 175

tgc ccc tgg gag ggc cac aag tct act gtg acc tgc cat gtc tcc cat   576
Cys Pro Trp Glu Gly His Lys Ser Thr Val Thr Cys His Val Ser His
            180                 185                 190

ttg act ggc aac aag agt ctg tcc gta aag ttg aat tca ggt ctc aga   624
Leu Thr Gly Asn Lys Ser Leu Ser Val Lys Leu Asn Ser Gly Leu Arg
        195                 200                 205

acc tca gga tct cca gcg ttg tcc tta ctg atc att ctt tat gtg aaa   672
Thr Ser Gly Ser Pro Ala Leu Ser Leu Leu Ile Ile Leu Tyr Val Lys
    210                 215                 220

ctc tct ctt ttt gtg gtc att ctg gtc acc aca gga ttt gtt ttc ttc   720
Leu Ser Leu Phe Val Val Ile Leu Val Thr Thr Gly Phe Val Phe Phe
225                 230                 235                 240

cag agg ata aat cat gtc aga aaa gtt ctt taaagaagaa ggaagggtct     770
Gln Arg Ile Asn His Val Arg Lys Val Leu
                245                 250

tcttttgctt ctcctccttg tctctggact gcaacattgg tgagatgagt gatggtccag 830

cagtgaactt gggccatgga tgatgttaag gatagaagcc actcagtagg atagaagaaa 890

agaaagatgg aagaaggatc ctgggcttga tgaccatgaa gtttccctat aaaccctcaa 950

ccacctattc attgacttct tttgtgttag agtgaataaa attttgttca tgccagtgtt 1010
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<210> 8
<211> 250
<212> PRT
<213> Unknown

<400> 8

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Met Gly Gly Lys Gln Met Thr Gln Asn Tyr Ser Thr Ile Phe Ala Glu
  1               5                  10                  15

Gly Asn Ile Ser Gln Pro Val Leu Met Asp Ile Asn Ala Val Leu Cys
```

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            20                  25                  30

Cys Pro Pro Ile Ala Leu Arg Asn Leu Ile Ile Ile Thr Trp Glu Ile
         35                  40                  45

Ile Leu Arg Gly Gln Pro Ser Cys Thr Lys Ala Tyr Lys Lys Glu Thr
     50                  55                  60

Asn Glu Thr Lys Glu Thr Asn Cys Thr Val Glu Arg Ile Thr Trp Val
 65                  70                  75                  80

Ser Arg Pro Asp Gln Asn Ser Asp Leu Gln Ile Arg Pro Val Asp Thr
                 85                  90                  95

Thr His Asp Gly Tyr Tyr Arg Gly Ile Val Val Thr Pro Asp Gly Asn
            100                 105                 110

Phe His Arg Gly Tyr His Leu Gln Val Leu Val Thr Pro Glu Val Asn
        115                 120                 125

Leu Phe Gln Ser Arg Asn Ile Thr Ala Val Cys Lys Ala Val Thr Gly
    130                 135                 140

Lys Pro Ala Ala Gln Ile Ser Trp Ile Pro Glu Gly Ser Ile Leu Ala
145                 150                 155                 160

Thr Lys Gln Glu Tyr Trp Gly Asn Gly Thr Val Thr Val Lys Ser Thr
                165                 170                 175

Cys Pro Trp Glu Gly His Lys Ser Thr Val Thr Cys His Val Ser His
            180                 185                 190

Leu Thr Gly Asn Lys Ser Leu Ser Val Lys Leu Asn Ser Gly Leu Arg
        195                 200                 205

Thr Ser Gly Ser Pro Ala Leu Ser Leu Leu Ile Ile Leu Tyr Val Lys
    210                 215                 220

Leu Ser Leu Phe Val Val Ile Leu Val Thr Thr Gly Phe Val Phe Phe
225                 230                 235                 240

Gln Arg Ile Asn His Val Arg Lys Val Leu
                245                 250


<210> 9
<211> 1085
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism:rodent; surmised
      mus musculus

<220>
<221> CDS
<222> (1)..(582)

<400> 9
aga ggc cag cct tcc tgc ata atg gcc tac aaa gta gaa aca aag gag   48
Arg Gly Gln Pro Ser Cys Ile Met Ala Tyr Lys Val Glu Thr Lys Glu
  1               5                  10                  15

acc aat gaa acc tgc ttg ggc agg aac atc acc tgg gcc tcc aca cct   96
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Thr Asn Glu Thr Cys Leu Gly Arg Asn Ile Thr Trp Ala Ser Thr Pro
            20                  25                  30

gac cac att cct gac ctt cag atc agt gcg gtg gcc ctc cag cat gag   144
Asp His Ile Pro Asp Leu Gln Ile Ser Ala Val Ala Leu Gln His Glu
         35                  40                  45

ggg aat tac tta tgt gag ata aca aca cct gaa ggg aat ttc cat aaa   192
Gly Asn Tyr Leu Cys Glu Ile Thr Thr Pro Glu Gly Asn Phe His Lys
     50                  55                  60

gtc tat gac ctc caa gtg ctg gtg ccc cct gaa gta acc tac ttt ctc   240
Val Tyr Asp Leu Gln Val Leu Val Pro Pro Glu Val Thr Tyr Phe Leu
 65                  70                  75                  80

ggg gaa aat aga act gca gtt tgt gag gca atg gca ggc aag cct gct   288
Gly Glu Asn Arg Thr Ala Val Cys Glu Ala Met Ala Gly Lys Pro Ala
                 85                  90                  95

gca cag atc tct tgg act cca gat ggg gac tgt gtc act aag agt gag   336
Ala Gln Ile Ser Trp Thr Pro Asp Gly Asp Cys Val Thr Lys Ser Glu
            100                 105                 110

tca cac agc aat ggc act gtg act gtc agg agc act tgc cac tgg gag   384
Ser His Ser Asn Gly Thr Val Thr Val Arg Ser Thr Cys His Trp Glu
        115                 120                 125

cag aac aat gtg tct gct gtg tcc tgc att gtc tct cat tcg act ggt   432
Gln Asn Asn Val Ser Ala Val Ser Cys Ile Val Ser His Ser Thr Gly
    130                 135                 140

aat cag tct ctg tcc ata gaa ctg agt aga ggt acc acc agc acc acc   480
Asn Gln Ser Leu Ser Ile Glu Leu Ser Arg Gly Thr Thr Ser Thr Thr
145                 150                 155                 160

cct tcc ttg ctg acc att ctc tac gtg aaa atg gtc ctt ttg ggg att   528
Pro Ser Leu Leu Thr Ile Leu Tyr Val Lys Met Val Leu Leu Gly Ile
                165                 170                 175

att ctt ctt aaa gtg gga ttt gct ttc ttc cag aag aga aat gtt acc   576
Ile Leu Leu Lys Val Gly Phe Ala Phe Phe Gln Lys Arg Asn Val Thr
            180                 185                 190

aga aca tgaatatcca gatttctgga agctcattag tctgatgaca cataccagaa    632
Arg Thr

aacagcattt gtaatcaact ttctcattgg aatccagctt acccgtccct gctgtcttca 692

tgtttgttag acactcacct ccaaattctt aactgagaag ggctcctgtc taaaggaaat 752

atggggacaa attgtggagc atagaccaaa agaaaggcca tccagagact gccccaccta 812

aggacccatc ccatatacag acaccaaacc cagacactac tgaagatgct gcgaagcgtt 872

tgctgacagg agcctgttat agctgtctcc tgagaggctc agccagagcc tgacaaatac 932

ataggtagat gcttgcagcc aacaactgga ctgagcaaaa aatctccatt ggaggagtta 992

gagaaaggac tgaagagggt gaaagggttt gcagccccat aggaagaaca acaatatcaa 1052

ccaaccagat ctcccagagc tcccagggac taa                              1085
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<210> 10

<211> 194
<212> PRT
<213> Unknown

<400> 10
Arg Gly Gln Pro Ser Cys Ile Met Ala Tyr Lys Val Glu Thr Lys Glu
1 5 10 15

Thr Asn Glu Thr Cys Leu Gly Arg Asn Ile Thr Trp Ala Ser Thr Pro
20 25 30

Asp His Ile Pro Asp Leu Gln Ile Ser Ala Val Ala Leu Gln His Glu
35 40 45

Gly Asn Tyr Leu Cys Glu Ile Thr Thr Pro Glu Gly Asn Phe His Lys
50 55 60

Val Tyr Asp Leu Gln Val Leu Val Pro Pro Glu Val Thr Tyr Phe Leu
65 70 75 80

Gly Glu Asn Arg Thr Ala Val Cys Glu Ala Met Ala Gly Lys Pro Ala
85 90 95

Ala Gln Ile Ser Trp Thr Pro Asp Gly Asp Cys Val Thr Lys Ser Glu
100 105 110

Ser His Ser Asn Gly Thr Val Thr Val Arg Ser Thr Cys His Trp Glu
115 120 125

Gln Asn Asn Val Ser Ala Val Ser Cys Ile Val Ser His Ser Thr Gly
130 135 140

Asn Gln Ser Leu Ser Ile Glu Leu Ser Arg Gly Thr Thr Ser Thr Thr
145 150 155 160

Pro Ser Leu Leu Thr Ile Leu Tyr Val Lys Met Val Leu Leu Gly Ile
165 170 175

Ile Leu Leu Lys Val Gly Phe Ala Phe Phe Gln Lys Arg Asn Val Thr
180 185 190

Arg Thr

<210> 11
<211> 1354
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism:rodent; surmised
mus musculus

<220>
<221> CDS
<222> (42)..(875)

<220>
<221> mat_peptide
<222> (117)..(875)

<400> 11
ggcacgagtt acgatttgtg cttaacctga ctccactcca g atg cat gct ttg ggg 56

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                                                  Met His Ala Leu Gly
                                                  -25

agg act ctg gct ttg atg tta ctc atc ttc atc act att ttg gtg cct   104
Arg Thr Leu Ala Leu Met Leu Leu Ile Phe Ile Thr Ile Leu Val Pro
-20                 -15                 -10                  -5

gag tca agt tgt tca gtg aaa gga cgg gag gag atc cca ccg gat gat   152
Glu Ser Ser Cys Ser Val Lys Gly Arg Glu Glu Ile Pro Pro Asp Asp
            -1   1                5                  10

tca ttt cct ttt tca gat gat aat atc ttc cct gat gga gtg ggc gtc   200
Ser Phe Pro Phe Ser Asp Asp Asn Ile Phe Pro Asp Gly Val Gly Val
         15                  20                  25

acc atg gag att gag att atc act cca gtg tct gta cag ata ggt atc   248
Thr Met Glu Ile Glu Ile Ile Thr Pro Val Ser Val Gln Ile Gly Ile
     30                  35                  40

aag gct cag ctt ttc tgt cat cct agt cca tca aaa gaa gca aca ctt   296
Lys Ala Gln Leu Phe Cys His Pro Ser Pro Ser Lys Glu Ala Thr Leu
 45                  50                  55                  60

aga ata tgg gaa ata act ccc aga gac tgg cct tcc tgc aga cta ccc   344
Arg Ile Trp Glu Ile Thr Pro Arg Asp Trp Pro Ser Cys Arg Leu Pro
                65                  70                  75

tac aga gca gag ttg cag cag atc agt aaa aaa atc tgt act gag aga   392
Tyr Arg Ala Glu Leu Gln Gln Ile Ser Lys Lys Ile Cys Thr Glu Arg
            80                  85                  90

gga acc act agg gtc cct gca cat cac cag agt tct gac ctt ccc atc   440
Gly Thr Thr Arg Val Pro Ala His His Gln Ser Ser Asp Leu Pro Ile
         95                 100                 105

aaa tca atg gcc ctc aag cat gat ggg cat tac tca tgt cgg ata gaa   488
Lys Ser Met Ala Leu Lys His Asp Gly His Tyr Ser Cys Arg Ile Glu
    110                 115                 120

aca aca gat ggg att ttc caa gag aga cat agc atc caa gtg cca ggg   536
Thr Thr Asp Gly Ile Phe Gln Glu Arg His Ser Ile Gln Val Pro Gly
125                 130                 135                 140

gaa aat aga act gta gtt tgt gag gca att gca agc aag cct gct atg   584
Glu Asn Arg Thr Val Val Cys Glu Ala Ile Ala Ser Lys Pro Ala Met
                145                 150                 155

cag atc ttg tgg act cca gat gag gac tgt gtc act aag agt aaa tca   632
Gln Ile Leu Trp Thr Pro Asp Glu Asp Cys Val Thr Lys Ser Lys Ser
            160                 165                 170

cac aat gac acc atg att gtc agg agc aag tgc cac agg gag aaa aac   680
His Asn Asp Thr Met Ile Val Arg Ser Lys Cys His Arg Glu Lys Asn
        175                 180                 185

aat ggc cac agt gtg ttc tgc ttt atc tcc cat ttg act gat aac tgg   728
Asn Gly His Ser Val Phe Cys Phe Ile Ser His Leu Thr Asp Asn Trp
    190                 195                 200

att ctc tcc atg gaa cag aat cga ggt aca acc agc atc ctg cct tcc   776
Ile Leu Ser Met Glu Gln Asn Arg Gly Thr Thr Ser Ile Leu Pro Ser
205                 210                 215                 220

ttg ctg agc att ctc tat gtg aaa ctg gct gta act gtt ctc atc gta   824
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Leu Leu Ser Ile Leu Tyr Val Lys Leu Ala Val Thr Val Leu Ile Val
                225                 230                 235

gga ttt gct ttt ttc cag aag aga aat tat ttc aga gtg cca gaa ggc   872
Gly Phe Ala Phe Phe Gln Lys Arg Asn Tyr Phe Arg Val Pro Glu Gly
            240                 245                 250

tcc tgaggagagt ggtctgtggt taagatgaga tttaccacca tctgaaagac       925
Ser

atcttgtcta ccgcgcagcg tgctgagatt ccgagaagca gccacagaac ctactaggaa 985

gacaaatctg atgtggttgt caatcctttc aatggacctg agtacttcta taaacccgag 1045

tgaggttgtg ctggacccag gagccaggct aggtcatata tgttgatttt tgctgcaaga 1105

cctcatggtt tatctacaaa tcctaaattc tttcacttcc agttttaaaa cttttggccc 1165

aagcatttta tccacagcat aacaccttta aagaaactct cccacggaaa ctgctggttc 1225

catggaatgg aaaattgcaa catggtttac aagacagtgc aaaccaagca gcattccaag 1285

atatgagctt cagaaagtta caggaactgt cttgggacga gaaagaagga ttaaatagtt 1345

cccagtccc                                                        1354


<210> 12
<211> 278
<212> PRT
<213> Unknown

<400> 12
Met His Ala Leu Gly Arg Thr Leu Ala Leu Met Leu Leu Ile Phe Ile
-25                 -20                 -15                 -10

Thr Ile Leu Val Pro Glu Ser Ser Cys Ser Val Lys Gly Arg Glu Glu
                -5                  -1   1                  5

Ile Pro Pro Asp Asp Ser Phe Pro Phe Ser Asp Asp Asn Ile Phe Pro
         10                  15                  20

Asp Gly Val Gly Val Thr Met Glu Ile Glu Ile Ile Thr Pro Val Ser
     25                  30                  35

Val Gln Ile Gly Ile Lys Ala Gln Leu Phe Cys His Pro Ser Pro Ser
 40                  45                  50                  55

Lys Glu Ala Thr Leu Arg Ile Trp Glu Ile Thr Pro Arg Asp Trp Pro
                60                  65                  70

Ser Cys Arg Leu Pro Tyr Arg Ala Glu Leu Gln Gln Ile Ser Lys Lys
             75                  80                  85

Ile Cys Thr Glu Arg Gly Thr Thr Arg Val Pro Ala His His Gln Ser
         90                  95                  100

Ser Asp Leu Pro Ile Lys Ser Met Ala Leu Lys His Asp Gly His Tyr
    105                 110                 115

Ser Cys Arg Ile Glu Thr Thr Asp Gly Ile Phe Gln Glu Arg His Ser
120                 125                 130                 135

Ile Gln Val Pro Gly Glu Asn Arg Thr Val Val Cys Glu Ala Ile Ala
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                140                 145                 150

Ser Lys Pro Ala Met Gln Ile Leu Trp Thr Pro Asp Glu Asp Cys Val
            155                 160                 165

Thr Lys Ser Lys Ser His Asn Asp Thr Met Ile Val Arg Ser Lys Cys
        170                 175                 180

His Arg Glu Lys Asn Asn Gly His Ser Val Phe Cys Phe Ile Ser His
    185                 190                 195

Leu Thr Asp Asn Trp Ile Leu Ser Met Glu Gln Asn Arg Gly Thr Thr
200                 205                 210                 215

Ser Ile Leu Pro Ser Leu Leu Ser Ile Leu Tyr Val Lys Leu Ala Val
                220                 225                 230

Thr Val Leu Ile Val Gly Phe Ala Phe Phe Gln Lys Arg Asn Tyr Phe
            235                 240                 245

Arg Val Pro Glu Gly Ser
        250
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<210> 13
<211> 981
<212> DNA
<213> reverse translation

<220>
<221> misc_feature
<222> (1)..(981)
<223> n may be a, c, g, or t

<400> 13
atgytntgyt tytggmgnac nwsncaygtn gcngtnytny tnathtgggg ngtnttygcn 60

gcngarwsnw sntgyccnga yaaraaycar acnatgcara ayaaywsnws nacnatgacn 120

gargtnaaya cnacngtntt ygtncaratg ggnaaraarg cnytnytntg ytgyccnwsn 180

athwsnytna cnaargtnat hytnathacn tggacnatha cnytnmgngg ncarccnwsn 240

tgyathathw sntayaargc ngayacnmgn garacncayg arwsnaaytg ywsngaymgn 300

wsnathacnt gggcnwsnac nccngayytn gcnccngayy tncarathws ngcngtngcn 360

ytncarcayg arggnmgnta ywsntgygay athgcngtnc cngayggnaa yttycaraay 420

athtaygayy tncargtnyt ngtnccnccn gargtnacnc ayttyccngg ngaraaymgn 480

acngcngtnt gygargcnat hgcnggnaar ccngcngcnc arathwsntg gacnccngay 540

ggngaytgyg tngcnaaraa ygarwsncay wsnaayggna cngtnacngt nmgnwsnacn 600

tgycaytggg arcarwsnca ygtnwsngtn gtnttytgyg tngtnwsnca yytnacnacn 660

ggnaaycarw snytnwsnat hgarytnggn mgnggnggng aycarytnyt nggnwsntay 720

athcartaya thathccnws nathathath ytnathatha thggntgyat htgyytnytn 780

aarathwsng gntgymgnaa rtgyaarytn ccnaarwsng gngcnacncc ngayathgar 840

gargaygara tgcarccnta ygcnwsntay acngaraarw snaayccnyt ntaygayacn 900

gtnacnacna cngargcnca yccngcnwsn carggnaarg tnaayggnac ngaytgyytn 960

acnytnwsng cnatgggnat h 981

<210> 14
<211> 885
<212> DNA
<213> reverse translation

<220>
<221> misc_feature
<222> (1)..(885)
<223> n may be a, c, g, or t

<400> 14
atgytntgyc cntggmgnac ngcnaayytn ggnytnytny tnathytnac naththyytn 60

gtngcngarg cngarggngc ngcncarccn aayaaywsny tnatgytnca racnwsnaar 120

garaaycayg cnytngcnws nwsnwsnytn tgyatggayg araarcarat hacncaraay 180

taywsnaarg tnytngcnga rgtnaayacn wsntggccng tnaaratggc nacnaaygcn 240

gtnytntgyt gyccnccnat hgcnytnmgn aayytnatha thathacntg ggarathath 300

ytnmgnggnc arccnwsntg yacnaargcn tayaaraarg aracnaayga racnaargar 360

acnaaytgya cngaygarmg nathacntgg gtnwsnmgnc cngaycaraa ywsngayytn 420

carathmgna cngtngcnat hacncaygay ggntaytaym gntgyathat ggtnacnccn 480

gayggnaayt tycaymgngg ntaycayytn cargtnytng tnacnccnga rgtnacnytn 540

ttycaraaym gnaaymgnac ngcngtntgy aargcngtng cnggnaarcc ngcngcncay 600

athwsntgga thccngargg ngaytgygcn acnaarcarg artaytggws naayggnacn 660

gtnacngtna arwsnacntg ycaytgggar gtncayaayg tnwsnacngt nacntgycay 720

gtnwsncayy tnacnggnaa yaarwsnytn tayathgary tnytnccngt nccnggngcn 780

aaraarathw snaarathat htaywsnath taycayccnt aytaytayta yytngaycay 840

mgnggnathc ayytngtngt ngarwsncar tggytncara arath 885

<210> 15
<211> 978
<212> DNA
<213> reverse translation

<220>
<221> misc_feature
<222> (1)..(978)
<223> n may be a, c, g, or t

<400> 15
atgttytgyt tytggmgnac nwsngcnytn gcngtnytny tnathtgggg ngtnttygtn 60

gcnggnwsnw sntgyacnga yaaraaycar acnacncara ayaaywsnws nwsnccnytn 120

acncargtna ayacnacngt nwsngtncar athggnacna argcnytnyt ntgytgytty 180

wsnathccny tnacnaargc ngtnytnath acntggatha thaarytnmg nggnytnccn 240

wsntgyacna thgcntayaa rgtngayacn aaracnaayg aracnwsntg yytnggnmgn 300

aayathacnt gggcnwsnac nccngaycay wsnccngary tncarathws ngcngtnacn 360

ytncarcayg arggnacnta yacntgygar acngtnacnc cngarggnaa yttygaraar 420

aaytaygayy tncargtnyt ngtnccnccn gargtnacnt ayttyccnga raaraaymgn 480

wsngcngtnt gygargcnat ggcnggnaar ccngcngcnc arathwsntg gwsnccngay 540

ggngaytgyg tnacnacnws ngarwsncay wsnaayggna cngtnacngt nmgnwsnacn 600

tgycaytggg arcaraayaa ygtnwsngay gtnwsntgya thgtnwsnca yytnacnggn 660

aaycarwsny tnwsnathga rytnwsnmgn ggnggnaayc arwsnytnmg nccntayath 720

ccntayatha thccnwsnat hathathytn athathathg gntgyathtg yytnytnaar 780

athwsnggnt tymgnaartg yaarytnccn aarytngarg cnacnwsngc nathgargar 840

gaygaratgc arccntaygc nwsntayacn garaarwsna ayccnytnta ygayacngtn 900

acnaargtng argcnttycc ngtnwsncar ggngargtna ayggnacnga ytgyytnacn 960

ytnwsngcna thggnath 978

<210> 16
<211> 750
<212> DNA
<213> reverse translation

<220>
<221> misc_feature
<222> (1)..(750)
<223> n may be a, c, g, or t

<400> 16
atgggnggna arcaratgac ncaraaytay wsnacnatht tygcngargg naayathwsn 60

carccngtny tnatggayat haaygcngtn ytntgytgyc cnccnathgc nytnmgnaay 120

ytnathatha thacntggga rathathytn mgnggncarc cnwsntgyac naargcntay 180

aaraargara cnaaygarac naargaracn aaytgyacng tngarmgnat hacntgggtn 240

wsnmgnccng aycaraayws ngayytncar athmgnccng tngayacnac ncaygayggn 300

taytaymgng gnathgtngt nacnccngay ggnaayttyc aymgnggnta ycayytncar 360

gtnytngtna cnccngargt naayytntty carwsnmgna ayathacngc ngtntgyaar 420

gcngtnacng gnaarccngc ngcncarath wsntggathc cngarggnws nathytngcn 480

acnaarcarg artaytgggg naayggnacn gtnacngtna arwsnacntg yccntgggar 540

ggncayaarw snacngtnac ntgycaygtn wsncayytna cnggnaayaa rwsnytnwsn 600

gtnaarytna aywsnggnyt nmgnacnwsn ggnwsnccng cnytnwsnyt nytnathath 660

ytntaygtna arytnwsnyt nttygtngtn athytngtna cnacnggntt ygtnttytty 720

carmgnatha aycaygtnmg naargtnytn 750

<210> 17
<211> 582
<212> DNA
<213> reverse translation

<220>
<221> misc_feature
<222> (1)..(582)
<223> n may be a, c, g, or t

<400> 17
mgnggncarc cnwsntgyat hatggcntay aargtngara cnaargarac naaygaracn 60

tgyytnggnm gnaayathac ntgggcnwsn acnccngayc ayathccnga yytncarath 120

wsngcngtng cnytncarca ygarggnaay tayytntgyg arathacnac nccngarggn 180

aayttycaya argtntayga yytncargtn ytngtnccnc cngargtnac ntayttyytn 240

ggngaraaym gnacngcngt ntgygargcn atggcnggna arccngcngc ncarathwsn 300

tggacnccng ayggngaytg ygtnacnaar wsngarwsnc aywsnaaygg nacngtnacn 360

gtnmgnwsna cntgycaytg ggarcaraay aaygtnwsng cngtnwsntg yathgtnwsn 420

caywsnacng gnaaycarws nytnwsnath garytnwsnm gnggnacnac nwsnacnacn 480

ccnwsnytny tnacnathyt ntaygtnaar atggtnytny tnggnathat hytnytnaar 540

gtnggnttyg cnttyttyca raarmgnaay gtnacnmgna cn 582

<210> 18
<211> 834
<212> DNA
<213> reverse translation

<220>
<221> misc_feature
<222> (1)..(834)
<223> n may be a, c, g, or t

<400> 18
atgcaygcny tnggnmgnac nytngcnytn atgytnytna thttyathac nathytngtn 60

ccngarwsnw sntgywsngt naarggnmgn gargarathc cnccngayga ywsnttyccn 120

ttywsngayg ayaayathtt yccngayggn gtnggngtna cnatggarat hgarathath 180

acnccngtnw sngtncarat hggnathaar gcncarytnt tytgycaycc nwsnccnwsn 240

aargargcna cnytnmgnat htgggarath acnccnmgng aytggccnws ntgymgnytn 300

ccntaymgng cngarytnca rcarathwsn aaraaratht gyacngarmg nggnacnacn 360

mgngtnccng cncaycayca rwsnwsngay ytnccnatha arwsnatggc nytnaarcay 420

gayggncayt aywsntgymg nathgaracn acngayggna thttycarga rmgncaywsn 480

athcargtnc cnggngaraa ymgnacngtn gtntgygarg cnathgcnws naarccngcn 540

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atgcarathy tntggacncc ngaygargay tgygtnacna arwsnaarws ncayaaygay 600

acnatgathg tnmgnwsnaa rtgycaymgn garaaraaya ayggncayws ngtnttytgy 660

ttyathwsnc ayytnacnga yaaytggath ytnwsnatgg arcaraaymg nggnacnacn 720

wsnathytnc cnwsnytnyt nwsnathytn taygtnaary tngcngtnac ngtnytnath 780

gtnggnttyg cnttyttyca raarmgnaay tayttymgng tnccngargg nwsn       834
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<210> 19
<211> 1047
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism:primate; surmised
homo sapiens

<220>
<221> CDS
<222> (1)..(1044)

<220>
<221> mat_peptide
<222> (79)..(1044)

<400> 19

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atg ctc tgc cct tgg aga act gct aac cta ggg cta ctg ttg att ttg   48
Met Leu Cys Pro Trp Arg Thr Ala Asn Leu Gly Leu Leu Leu Ile Leu
    -25                 -20                 -15

act atc ttc tta gtg gcc gaa gcg gag ggt gct gct caa cca aac aac   96
Thr Ile Phe Leu Val Ala Glu Ala Glu Gly Ala Ala Gln Pro Asn Asn
-10                  -5                  -1   1                5

tca tta atg ctg caa act agc aag gag aat cat gct tta gct tca agc   144
Ser Leu Met Leu Gln Thr Ser Lys Glu Asn His Ala Leu Ala Ser Ser
            10                  15                  20

agt tta tgt atg gat gaa aaa cag att aca cag aac tac tcg aaa gta   192
Ser Leu Cys Met Asp Glu Lys Gln Ile Thr Gln Asn Tyr Ser Lys Val
        25                  30                  35

ctc gca gaa gtt aac act tca tgg cct gta aag atg gct aca aat gct   240
Leu Ala Glu Val Asn Thr Ser Trp Pro Val Lys Met Ala Thr Asn Ala
    40                  45                  50

gtg ctt tgt tgc cct cct atc gca tta aga aat ttg atc ata ata aca   288
Val Leu Cys Cys Pro Pro Ile Ala Leu Arg Asn Leu Ile Ile Ile Thr
55                  60                  65                  70

tgg gaa ata atc ctg aga ggc cag cct tcc tgc aca aaa gcc tac agg   336
Trp Glu Ile Ile Leu Arg Gly Gln Pro Ser Cys Thr Lys Ala Tyr Arg
                75                  80                  85

aaa gaa aca aat gag acc aag gaa acc aac tgt act gat gag aga ata   384
Lys Glu Thr Asn Glu Thr Lys Glu Thr Asn Cys Thr Asp Glu Arg Ile
            90                  95                  100

acc tgg gtc tcc aga cct gat cag aat tcg gac ctt cag att cgt cca   432
Thr Trp Val Ser Arg Pro Asp Gln Asn Ser Asp Leu Gln Ile Arg Pro
```

```
        105                 110                 115

gtg gcc atc act cat gac ggg tat tac aga tgc ata atg gta aca cct   480

Val Ala Ile Thr His Asp Gly Tyr Tyr Arg Cys Ile Met Val Thr Pro
    120                 125                 130

gat ggg aat ttc cat cgt gga tat cac ctc caa gtg tta gtt aca cct   528
Asp Gly Asn Phe His Arg Gly Tyr His Leu Gln Val Leu Val Thr Pro
135                 140                 145                 150

gaa gtg acc ctg ttt caa aac agg aat aga act gca gta tgc aag gca   576
Glu Val Thr Leu Phe Gln Asn Arg Asn Arg Thr Ala Val Cys Lys Ala
                155                 160                 165

gtt gca ggg aag cca gct gcg cag atc tcc tgg atc cca gag ggc gat   624
Val Ala Gly Lys Pro Ala Ala Gln Ile Ser Trp Ile Pro Glu Gly Asp
            170                 175                 180

tgt gcc act aag caa gaa tac tgg agc aat ggc aca gtg act gtt aag   672
Cys Ala Thr Lys Gln Glu Tyr Trp Ser Asn Gly Thr Val Thr Val Lys
        185                 190                 195

agt aca tgc cac tgg gag gtc cac aat gtg tct acc gtg acc tgc cac   720
Ser Thr Cys His Trp Glu Val His Asn Val Ser Thr Val Thr Cys His
    200                 205                 210

gtc tcc cat ttg act ggc aac aag agt ctg tac ata gag cta ctt cct   768
Val Ser His Leu Thr Gly Asn Lys Ser Leu Tyr Ile Glu Leu Leu Pro
215                 220                 225                 230

gtt cca ggt gcc aaa aaa tca gca aaa tta tat att cca tat atc atc   816
Val Pro Gly Ala Lys Lys Ser Ala Lys Leu Tyr Ile Pro Tyr Ile Ile
                235                 240                 245

ctt act att att att ttg acc atc gtg gga ttc att tgg ttg ttg aaa   864
Leu Thr Ile Ile Ile Leu Thr Ile Val Gly Phe Ile Trp Leu Leu Lys
            250                 255                 260

gtc aat ggc tgc aga aaa tat aaa ttg aat aaa aca gaa tct act cca   912
Val Asn Gly Cys Arg Lys Tyr Lys Leu Asn Lys Thr Glu Ser Thr Pro
        265                 270                 275

gtt gtt gag gag gat gaa atg cag ccc tat gcc agc tac aca gag aag   960
Val Val Glu Glu Asp Glu Met Gln Pro Tyr Ala Ser Tyr Thr Glu Lys
    280                 285                 290

aac aat cct ctc tat gat act aca aac aag gtg aag gca tct cag gca   1008
Asn Asn Pro Leu Tyr Asp Thr Thr Asn Lys Val Lys Ala Ser Gln Ala
295                 300                 305                 310

tta caa agt gaa gtt gac aca gac ctc cat act tta taa               1047
Leu Gln Ser Glu Val Asp Thr Asp Leu His Thr Leu
                315                 320
```

<210> 20
<211> 348
<212> PRT
<213> Unknown

<400> 20

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Met Leu Cys Pro Trp Arg Thr Ala Asn Leu Gly Leu Leu Leu Ile Leu
    -25                 -20                 -15
```

```
Thr Ile Phe Leu Val Ala Glu Ala Glu Gly Ala Ala Gln Pro Asn Asn
-10                  -5                  -1   1                   5

Ser Leu Met Leu Gln Thr Ser Lys Glu Asn His Ala Leu Ala Ser Ser
             10                  15                  20

Ser Leu Cys Met Asp Glu Lys Gln Ile Thr Gln Asn Tyr Ser Lys Val
         25                  30                  35

Leu Ala Glu Val Asn Thr Ser Trp Pro Val Lys Met Ala Thr Asn Ala
     40                  45                  50

Val Leu Cys Cys Pro Pro Ile Ala Leu Arg Asn Leu Ile Ile Ile Thr
 55                  60                  65                  70

Trp Glu Ile Ile Leu Arg Gly Gln Pro Ser Cys Thr Lys Ala Tyr Arg
                 75                  80                  85

Lys Glu Thr Asn Glu Thr Lys Glu Thr Asn Cys Thr Asp Glu Arg Ile
             90                  95                  100

Thr Trp Val Ser Arg Pro Asp Gln Asn Ser Asp Leu Gln Ile Arg Pro
         105                 110                 115

Val Ala Ile Thr His Asp Gly Tyr Tyr Arg Cys Ile Met Val Thr Pro
     120                 125                 130

Asp Gly Asn Phe His Arg Gly Tyr His Leu Gln Val Leu Val Thr Pro
135                 140                 145                 150

Glu Val Thr Leu Phe Gln Asn Arg Asn Arg Thr Ala Val Cys Lys Ala
                155                 160                 165

Val Ala Gly Lys Pro Ala Ala Gln Ile Ser Trp Ile Pro Glu Gly Asp
            170                 175                 180

Cys Ala Thr Lys Gln Glu Tyr Trp Ser Asn Gly Thr Val Thr Val Lys
        185                 190                 195

Ser Thr Cys His Trp Glu Val His Asn Val Ser Thr Val Thr Cys His
    200                 205                 210

Val Ser His Leu Thr Gly Asn Lys Ser Leu Tyr Ile Glu Leu Leu Pro
215                 220                 225                 230

Val Pro Gly Ala Lys Lys Ser Ala Lys Leu Tyr Ile Pro Tyr Ile Ile
                235                 240                 245

Leu Thr Ile Ile Ile Leu Thr Ile Val Gly Phe Ile Trp Leu Leu Lys
            250                 255                 260

Val Asn Gly Cys Arg Lys Tyr Lys Leu Asn Lys Thr Glu Ser Thr Pro
        265                 270                 275

Val Val Glu Glu Asp Glu Met Gln Pro Tyr Ala Ser Tyr Thr Glu Lys
    280                 285                 290

Asn Asn Pro Leu Tyr Asp Thr Thr Asn Lys Val Lys Ala Ser Gln Ala
295                 300                 305                 310

Leu Gln Ser Glu Val Asp Thr Asp Leu His Thr Leu
                315                 320
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<210> 21
<211> 1044
<212> DNA
<213> reverse translation

<220>
<221> misc_feature
<222> (1)..(1044)
<223> n may be a, c, g, or t

<400> 21
atgytntgyc cntggmgnac ngcnaayytn ggnytnytny tnathytnac naththyytn 60

gtngcngarg cngarggngc ngcncarccn aayaaywsny tnatgytnca racnwsnaar 120

garaaycayg cnytngcnws nwsnwsnytn tgyatggayg araarcarat hacncaraay 180

taywsnaarg tnytngcnga rgtnaayacn wsntggccng tnaaratggc nacnaaygcn 240

gtnytntgyt gyccnccnat hgcnytnmgn aayytnatha thathacntg ggarathath 300

ytnmgnggnc arccnwsntg yacnaargcn taymgnaarg aracnaayga racnaargar 360

acnaaytgya cngaygarmg nathacntgg gtnwsnmgnc cngaycaraa ywsngayytn 420

carathmgnc cngtngcnat hacncaygay ggntaytaym gntgyathat ggtnacnccn 480

gayggnaayt tycaymgngg ntaycayytn cargtnytng tnacnccnga rgtnacnytn 540

ttycaraaym gnaaymgnac ngcngtntgy aargcngtng cnggnaarcc ngcngcncar 600

athwsntgga thccngargg ngaytgygcn acnaarcarg artaytggws naayggnacn 660

gtnacngtna arwsnacntg ycaytgggar gtncayaayg tnwsnacngt nacntgycay 720

gtnwsncayy tnacnggnaa yaarwsnytn tayathgary tnytnccngt nccnggngcn 780

aaraarwsng cnaarytnta yathccntay athathytna cnathathat hytnacnath 840

gtnggnttya thtggytnyt naargtnaay ggntgymgna artayaaryt naayaaracn 900

garwsnacnc cngtngtnga rgargaygar atgcarccnt aygcnwsnta yacngaraar 960

aayaayccny tntaygayac nacnaayaar gtnaargcnw sncargcnyt ncarwsngar 1020

gtngayacng ayytncayac nytn 1044

<210> 22
<211> 813
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown Organism:rodent; surmised
mus musculus

<220>
<221> CDS
<222> (1)..(810)

<220>
<221> mat_peptide

<222> (76)..(810)

<400> 22

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atg cat gct ctg ggg agg att ccg act ttg act ttg ctg atc ttc atc   48
Met His Ala Leu Gly Arg Ile Pro Thr Leu Thr Leu Leu Ile Phe Ile
-25                 -20                 -15                 -10

aat att ttt gtg tct ggg tca agt tgt act gat gag aat caa aca ata   96
Asn Ile Phe Val Ser Gly Ser Ser Cys Thr Asp Glu Asn Gln Thr Ile
                -5                  -1   1                  5

cag aat gac agt tca tct tct ctg aca caa gtt aac act aca atg tct   144
Gln Asn Asp Ser Ser Ser Ser Leu Thr Gln Val Asn Thr Thr Met Ser
         10                  15                  20

gta cag atg gat aaa aag gct ctg ctc tgc tgc ttt tct agt cca ctg   192
Val Gln Met Asp Lys Lys Ala Leu Leu Cys Cys Phe Ser Ser Pro Leu
     25                  30                  35

ata aat gca gta tta atc aca tgg ata ata aaa cac aga cac ctg cct   240
Ile Asn Ala Val Leu Ile Thr Trp Ile Ile Lys His Arg His Leu Pro
 40                  45                  50                  55

tcc tgc aca ata gca tac aac cta gat aaa aag acc aat gaa acc agc   288
Ser Cys Thr Ile Ala Tyr Asn Leu Asp Lys Lys Thr Asn Glu Thr Ser
                60                  65                  70

tgc ttg ggc agg aac atc acc tgg gcc tcc aca cct gac cac agt cct   336
Cys Leu Gly Arg Asn Ile Thr Trp Ala Ser Thr Pro Asp His Ser Pro
             75                  80                  85

gaa ctt cag atc agt gca gtg gcc ctc cag cat gag ggg act tac aca   384
Glu Leu Gln Ile Ser Ala Val Ala Leu Gln His Glu Gly Thr Tyr Thr
         90                  95                  100

tgt gag ata gta aca cct gaa ggg aat tta gaa aaa gtc tat gac ctc   432
Cys Glu Ile Val Thr Pro Glu Gly Asn Leu Glu Lys Val Tyr Asp Leu
    105                 110                 115

caa gtg ctg gtg ccc cct gag gta acc tac ttt cca ggg aaa aac aga   480
Gln Val Leu Val Pro Pro Glu Val Thr Tyr Phe Pro Gly Lys Asn Arg
120                 125                 130                 135

act gca gtc tgt gag gca atg gca ggc aag cct gct gca cag atc tct   528
Thr Ala Val Cys Glu Ala Met Ala Gly Lys Pro Ala Ala Gln Ile Ser
                140                 145                 150

tgg act cca gat ggg gac tgt gtc act aag agt gag tca cac agc aat   576

Trp Thr Pro Asp Gly Asp Cys Val Thr Lys Ser Glu Ser His Ser Asn
            155                 160                 165

ggc act gtg act gtc agg agc acg tgc cac tgg gag cag aac aat gtg   624
Gly Thr Val Thr Val Arg Ser Thr Cys His Trp Glu Gln Asn Asn Val
        170                 175                 180

tct gtt gtg tcc tgc tta gtc tct cat tcg act ggt aat cag tct ctg   672
Ser Val Val Ser Cys Leu Val Ser His Ser Thr Gly Asn Gln Ser Leu
    185                 190                 195

tcc ata gaa ctg agt caa ggt aca atg acc acc ccc cgt tcc ttg ctg   720
Ser Ile Glu Leu Ser Gln Gly Thr Met Thr Thr Pro Arg Ser Leu Leu
200                 205                 210                 215
```

```
acc att ctc tat gtg aaa atg gcc ctt ttg gtg att att ctt ctt aac   768
Thr Ile Leu Tyr Val Lys Met Ala Leu Leu Val Ile Ile Leu Leu Asn
                220                 225                 230

gta gga ttt gct ttc ttc cag aag aga aat ttt gcc aga aca tga       813
Val Gly Phe Ala Phe Phe Gln Lys Arg Asn Phe Ala Arg Thr
            235                 240                 245
```

<210> 23
<211> 270
<212> PRT
<213> Unknown

<400> 23

```
Met His Ala Leu Gly Arg Ile Pro Thr Leu Thr Leu Leu Ile Phe Ile
-25                 -20                 -15                 -10

Asn Ile Phe Val Ser Gly Ser Ser Cys Thr Asp Glu Asn Gln Thr Ile
                 -5                  -1   1                  5

Gln Asn Asp Ser Ser Ser Ser Leu Thr Gln Val Asn Thr Thr Met Ser
         10                  15                  20

Val Gln Met Asp Lys Lys Ala Leu Leu Cys Cys Phe Ser Ser Pro Leu
     25                  30                  35

Ile Asn Ala Val Leu Ile Thr Trp Ile Ile Lys His Arg His Leu Pro
 40                  45                  50                  55

Ser Cys Thr Ile Ala Tyr Asn Leu Asp Lys Lys Thr Asn Glu Thr Ser
                 60                  65                  70

Cys Leu Gly Arg Asn Ile Thr Trp Ala Ser Thr Pro Asp His Ser Pro
             75                  80                  85

Glu Leu Gln Ile Ser Ala Val Ala Leu Gln His Glu Gly Thr Tyr Thr
         90                  95                  100

Cys Glu Ile Val Thr Pro Glu Gly Asn Leu Glu Lys Val Tyr Asp Leu
    105                 110                 115

Gln Val Leu Val Pro Pro Glu Val Thr Tyr Phe Pro Gly Lys Asn Arg
120                 125                 130                 135

Thr Ala Val Cys Glu Ala Met Ala Gly Lys Pro Ala Ala Gln Ile Ser
                140                 145                 150

Trp Thr Pro Asp Gly Asp Cys Val Thr Lys Ser Glu Ser His Ser Asn
            155                 160                 165

Gly Thr Val Thr Val Arg Ser Thr Cys His Trp Glu Gln Asn Asn Val
        170                 175                 180

Ser Val Val Ser Cys Leu Val Ser His Ser Thr Gly Asn Gln Ser Leu
    185                 190                 195

Ser Ile Glu Leu Ser Gln Gly Thr Met Thr Thr Pro Arg Ser Leu Leu
200                 205                 210                 215

Thr Ile Leu Tyr Val Lys Met Ala Leu Leu Val Ile Ile Leu Leu Asn
                220                 225                 230

Val Gly Phe Ala Phe Phe Gln Lys Arg Asn Phe Ala Arg Thr
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235 240 245

<210> 24
<211> 810
<212> DNA
<213> reverse translation

<220>
<221> misc_feature
<222> (1)..(810)
<223> n may be a, c, g, or t

<400> 24
atgcaygcny tnggnmgnat hccnacnytn acnytnytna thttyathaa yathttygtn 60

wsnggnwsnw sntgyacnga ygaraaycar acnathcara aygaywsnws nwsnwsnytn 120

acncargtna ayacnacnat gwsngtncar atggayaara argcnytnyt ntgytgytty 180

wsnwsnccny tnathaaygc ngtnytnath acntggatha thaarcaymg ncayytnccn 240

wsntgyacna thgcntayaa yytngayaar aaracnaayg aracnwsntg yytnggnmgn 300

aayathacnt gggcnwsnac nccngaycay wsnccngary tncarathws ngcngtngcn 360

ytncarcayg arggnacnta yacntgygar athgtnacnc cngarggnaa yytngaraar 420

gtntaygayy tncargtnyt ngtnccnccn gargtnacnt ayttyccngg naaraaymgn 480

acngcngtnt gygargcnat ggcnggnaar ccngcngcnc arathwsntg gacnccngay 540

ggngaytgyg tnacnaarws ngarwsncay wsnaayggna cngtnacngt nmgnwsnacn 600

tgycaytggg arcaraayaa ygtnwsngtn gtnwsntgyy tngtnwsnca ywsnacnggn 660

aaycarwsny tnwsnathga rytnwsncar ggnacnatga cnacnccnmg nwsnytnytn 720

acnathytnt aygtnaarat ggcnytnytn gtnathathy tnytnaaygt nggnttygcn 780

ttyttycara armgnaaytt ygcnmgnacn 810

<210> 25
<211> 34
<212> PRT
<213> Mus musculus

<400> 25
Met Phe Cys Phe Trp Arg Thr Ser Ala Leu Ala Val Leu Leu Ile Trp
1 5 10 15
Gly Val Phe Val Ala Gly Ser Ser Cys Thr Asp Lys Asn Gln Thr Thr
20 25 30
Gln Asn

<210> 26
<211> 34
<212> PRT
<213> Rattus rattus

<400> 26
Met Leu Cys Phe Trp Arg Thr Ser His Val Ala Val Leu Leu Ile Trp

```
 1               5                  10                  15
Gly Val Phe Ala Ala Glu Ser Ser Cys Pro Asp Lys Asn Gln Thr Met
            20                  25                  30
Gln Asn
```

<210> 27
<211> 60
<212> PRT
<213> Homo sapiens

<400> 27

```
Met Leu Cys Pro Trp Arg Thr Ala Asn Leu Gly Leu Leu Leu Ile Leu
 1               5                  10                  15
Thr Ile Phe Leu Val Ala Glu Ala Glu Gly Ala Ala Gln Pro Asn Asn
            20                  25                  30
Ser Leu Met Leu Gln Thr Ser Lys Glu Asn His Ala Leu Ala Ser Ser
        35                  40                  45
Ser Leu Cys Met Asp Glu Lys Gln Ile Thr Gln Asn
    50                  55                  60
```

<210> 28
<211> 9
<212> PRT
<213> Homo sapiens

<400> 28

```
Met Gly Gly Lys Gln Met Thr Gln Asn
 1               5
```

<210> 29
<211> 59
<212> PRT
<213> Mus musculus

<400> 29

```
Asn Ser Ser Ser Pro Leu Thr Gln Val Asn Thr Thr Val Ser Val Gln
 1               5                  10                  15
Ile Gly Thr Lys Ala Leu Leu Cys Cys Phe Ser Ile Pro Leu Thr Lys
            20                  25                  30
Ala Val Leu Ile Thr Trp Ile Ile Lys Leu Arg Gly Leu Pro Ser Cys
        35                  40                  45
Thr Ile Ala Tyr Lys Val Asp Thr Lys Thr Asn
    50                  55
```

<210> 30
<211> 59
<212> PRT
<213> Rattus rattus

<400> 30

```
Asn Ser Ser Thr Met Thr Glu Val Asn Thr Thr Val Phe Val Gln Met
 1               5                  10                  15
Gly Lys Lys Ala Leu Leu Cys Cys Pro Ser Ile Ser Leu Thr Lys Val
            20                  25                  30
Ile Leu Ile Thr Trp Thr Ile Thr Leu Arg Gly Gln Pro Ser Cys Ile
        35                  40                  45
Ile Ser Tyr Lys Ala Asp Thr Arg Glu Thr His
    50                  55
```

<210> 31
<211> 18
<212> PRT
<213> Homo sapiens

<400> 31
Arg Gly Gln Pro Ser Cys Ile Met Ala Tyr Lys Val Glu Thr Lys Glu
 1   5   10   15
Thr Asn

<210> 32
<211> 59
<212> PRT
<213> Homo sapiens

<400> 32
Tyr Ser Lys Val Leu Ala Glu Val Asn Thr Ser Trp Pro Val Lys Met
 1   5   10   15
Ala Thr Asn Ala Val Leu Cys Cys Pro Pro Ile Ala Leu Arg Asn Leu
            20   25   30
Ile Ile Ile Thr Trp Glu Ile Ile Leu Arg Gly Gln Pro Ser Cys Thr
        35   40   45
Lys Ala Tyr Lys Lys Glu Thr Asn Glu Thr Lys
    50   55

<210> 33
<211> 59
<212> PRT
<213> Homo sapiens

<400> 33
Tyr Ser Thr Ile Phe Ala Glu Gly Asn Ile Ser Gln Pro Val Leu Met
 1   5   10   15
Asp Ile Asn Ala Val Leu Cys Cys Pro Pro Ile Ala Leu Arg Asn Leu
            20   25   30
Ile Ile Ile Thr Trp Glu Ile Ile Leu Arg Gly Gln Pro Ser Cys Thr
        35   40   45
Lys Ala Tyr Lys Lys Glu Thr Asn Glu Thr Lys
    50   55

<210> 34
<211> 60
<212> PRT
<213> Mus musculus

<400> 34
Glu Thr Ser Cys Leu Gly Arg Asn Ile Thr Trp Ala Ser Thr Pro Asp
 1   5   10   15
His Ser Pro Glu Leu Gln Ile Ser Ala Val Thr Leu Gln His Glu Gly
            20   25   30
Thr Tyr Thr Cys Glu Thr Val Thr Pro Glu Gly Asn Phe Glu Lys Asn
        35   40   45
Tyr Asp Leu Gln Val Leu Val Pro Pro Glu Val Thr
    50   55   60

<210> 35
<211> 60
<212> PRT

<213> Rattus rattus

<400> 35
Glu Ser Asn Cys Ser Asp Arg Ser Ile Thr Trp Ala Ser Thr Pro Asp
 1   5   10   15
Leu Ala Pro Asp Leu Gln Ile Ser Ala Val Ala Leu Gln His Glu Gly
            20   25   30
Arg Tyr Ser Cys Asp Ile Ala Val Pro Asp Gly Asn Phe Gln Asn Ile
        35   40   45
Tyr Asp Leu Gln Val Leu Val Pro Pro Glu Val Thr
    50   55   60

<210> 36
<211> 59
<212> PRT
<213> Mus musculus

<400> 36
Glu Thr Cys Leu Gly Arg Asn Ile Thr Trp Ala Ser Thr Pro Asp His
 1   5   10   15
Ile Pro Asp Leu Gln Ile Ser Ala Val Ala Leu Gln His Glu Gly Asn
            20   25   30
Tyr Leu Cys Glu Ile Thr Thr Pro Glu Gly Asn Phe His Lys Val Tyr
        35   40   45
Asp Leu Gln Val Leu Val Pro Pro Glu Val Thr
    50   55

<210> 37
<211> 60
<212> PRT
<213> Homo sapiens

<400> 37
Glu Thr Asn Cys Thr Asp Glu Arg Ile Thr Trp Val Ser Arg Pro Asp
 1   5   10   15
Gln Asn Ser Asp Leu Gln Ile Arg Thr Val Ala Ile Thr His Asp Gly
            20   25   30
Tyr Tyr Arg Cys Ile Met Val Thr Pro Asp Gly Asn Phe His Arg Gly
        35   40   45
Tyr His Leu Gln Val Leu Val Thr Pro Glu Val Thr
    50   55   60

<210> 38
<211> 60
<212> PRT
<213> Homo sapiens

<400> 38
Glu Thr Asn Cys Thr Val Glu Arg Ile Thr Trp Val Ser Arg Pro Asp
 1   5   10   15
Gln Asn Ser Asp Leu Gln Ile Arg Pro Val Asp Thr Thr His Asp Gly
            20   25   30
Tyr Tyr Arg Gly Ile Val Val Thr Pro Asp Gly Asn Phe His Arg Gly
        35   40   45
Tyr His Leu Gln Val Leu Val Thr Pro Glu Val Asn
    50   55   60

<210> 39
<211> 59
<212> PRT

<213> Mus musculus

<400> 39
Tyr Phe Pro Glu Lys Asn Arg Ser Ala Val Cys Glu Ala Met Ala Gly
 1   5   10   15
Lys Pro Ala Ala Gln Ile Ser Trp Ser Pro Asp Gly Asp Cys Val Thr
            20   25   30
Thr Ser Glu Ser His Ser Asn Gly Thr Val Thr Val Arg Ser Thr Cys
        35   40   45
His Trp Glu Gln Asn Asn Val Ser Asp Val Ser
    50   55

<210> 40
<211> 59
<212> PRT
<213> Rattus rattus

<400> 40
His Phe Pro Gly Glu Asn Arg Thr Ala Val Cys Glu Ala Ile Ala Gly
 1   5   10   15
Lys Pro Ala Ala Gln Ile Ser Trp Thr Pro Asp Gly Asp Cys Val Ala
            20   25   30
Lys Asn Glu Ser His Ser Asn Gly Thr Val Thr Val Arg Ser Thr Cys
        35   40   45
His Trp Glu Gln Ser His Val Ser Val Val Phe
    50   55

<210> 41
<211> 59
<212> PRT
<213> Mus musculus

<400> 41
Tyr Phe Leu Gly Glu Asn Arg Thr Ala Val Cys Glu Ala Met Ala Gly
 1   5   10   15
Lys Pro Ala Ala Gln Ile Ser Trp Thr Pro Asp Gly Asp Cys Val Thr
            20   25   30
Lys Ser Glu Ser His Ser Asn Gly Thr Val Thr Val Arg Ser Thr Cys
        35   40   45
His Trp Glu Gln Asn Asn Val Ser Ala Val Ser
    50   55

<210> 42
<211> 59
<212> PRT
<213> Homo sapiens

<400> 42
Leu Phe Gln Asn Arg Asn Arg Thr Ala Val Cys Lys Ala Val Ala Gly
 1   5   10   15
Lys Pro Ala Ala His Ile Ser Trp Ile Pro Glu Gly Asp Cys Ala Thr
            20   25   30
Lys Gln Glu Tyr Trp Ser Asn Gly Thr Val Thr Val Lys Ser Thr Cys
        35   40   45
His Trp Glu Val His Asn Val Ser Thr Val Thr
    50   55

<210> 43
<211> 59
<212> PRT

<213> Homo sapiens

<400> 43
Leu Phe Gln Ser Arg Asn Ile Thr Ala Val Cys Lys Ala Val Thr Gly
 1   5   10   15
Lys Pro Ala Ala Gln Ile Ser Trp Ile Pro Glu Gly Ser Ile Leu Ala
            20   25   30
Thr Lys Gln Glu Tyr Trp Gly Asn Gly Thr Val Thr Val Lys Ser Thr
        35   40   45
Cys Pro Trp Glu Gly His Lys Ser Thr Val Thr
    50   55

<210> 44
<211> 59
<212> PRT
<213> Mus musculus

<400> 44
Cys Ile Val Ser His Leu Thr Gly Asn Gln Ser Leu Ser Ile Glu Leu
 1   5   10   15
Ser Arg Gly Gly Asn Gln Ser Leu Arg Pro Tyr Ile Pro Tyr Ile Ile
            20   25   30
Pro Ser Ile Ile Ile Leu Ile Ile Ile Gly Cys Ile Cys Leu Leu Lys
        35   40   45
Ile Ser Gly Phe Arg Lys Cys Lys Leu Pro Lys
    50   55

<210> 45
<211> 60
<212> PRT
<213> Rattus rattus

<400> 45
Cys Val Val Ser His Leu Thr Thr Gly Asn Gln Ser Leu Ser Ile Glu
 1   5   10   15
Leu Gly Arg Gly Gly Asp Gln Leu Leu Gly Ser Tyr Ile Gln Tyr Ile
            20   25   30
Ile Pro Ser Ile Ile Ile Leu Ile Ile Ile Gly Cys Ile Cys Leu Leu
        35   40   45
Lys Ile Ser Gly Cys Arg Lys Cys Lys Leu Pro Lys
    50   55   60

<210> 46
<211> 52
<212> PRT
<213> Mus musculus

<400> 46
Cys Ile Val Ser His Ser Thr Gly Asn Gln Ser Leu Ser Ile Glu Leu
 1   5   10   15
Ser Arg Gly Thr Thr Ser Thr Thr Pro Ser Leu Leu Thr Ile Leu Tyr
            20   25   30
Val Lys Met Val Leu Leu Gly Ile Ile Leu Leu Lys Val Gly Phe Ala
        35   40   45
Phe Phe Gln Lys
    50

<210> 47
<211> 50
<212> PRT

<213> Homo sapiens

<400> 47
Cys His Val Ser His Leu Thr Gly Asn Lys Ser Leu Tyr Ile Glu Leu
 1   5   10   15
Leu Pro Val Pro Gly Ala Lys Lys Ile Ser Lys Ile Ile Tyr Ser Ile
            20   25   30
Tyr His Pro Tyr Tyr Tyr Tyr Leu Asp His Arg Gly Ile His Leu Val
        35   40   45
Val Glu
    50

<210> 48
<211> 55
<212> PRT
<213> Homo sapiens

<400> 48
Cys His Val Ser His Leu Thr Gly Asn Lys Ser Leu Ser Val Lys Leu
 1   5   10   15
Asn Ser Gly Leu Arg Thr Ser Gly Ser Pro Ala Leu Ser Leu Leu Ile
            20   25   30
Ile Leu Tyr Val Lys Leu Ser Leu Phe Val Val Ile Leu Val Thr Thr
        35   40   45
Gly Phe Val Phe Phe Gln Arg
    50   55

<210> 49
<211> 55
<212> PRT
<213> Mus musculus

<400> 49
Leu Glu Ala Thr Ser Ala Ile Glu Glu Asp Glu Met Gln Pro Tyr Ala
 1   5   10   15
Ser Tyr Thr Glu Lys Ser Asn Pro Leu Tyr Asp Thr Val Thr Lys Val
            20   25   30
Glu Ala Phe Pro Val Ser Gln Gly Glu Val Asn Gly Thr Asp Cys Leu
        35   40   45
Thr Leu Ser Ala Ile Gly Ile
    50   55

<210> 50
<211> 55
<212> PRT
<213> Rattus rattus

<400> 50
Ser Gly Ala Thr Pro Asp Ile Glu Glu Asp Glu Met Gln Pro Tyr Ala
 1   5   10   15
Ser Tyr Thr Glu Lys Ser Asn Pro Leu Tyr Asp Thr Val Thr Thr Thr
            20   25   30
Glu Ala His Pro Ala Ser Gln Gly Lys Val Asn Gly Thr Asp Cys Leu
        35   40   45
Thr Leu Ser Ala Met Gly Ile
    50   55

<210> 51
<211> 6
<212> PRT

<213> Mus musculus

<400> 51
Arg Asn Val Thr Arg Thr
 1   5

<210> 52
<211> 7
<212> PRT
<213> Homo sapiens

<400> 52
Ser Gln Trp Leu Gln Lys Ile
 1   5

<210> 53
<211> 8
<212> PRT
<213> Homo sapiens

<400> 53
Ile Asn His Val Arg Lys Val Leu
 1   5

<210> 54
<211> 24
<212> PRT
<213> Homo sapiens

<400> 54
Met Gly Gly Lys Gln Met Thr Gln Asn Tyr Ser Thr Ile Phe Ala Glu
 1   5   10   15
Gly Asn Ile Ser Gln Pro Val Leu
            20

<210> 55
<211> 50
<212> PRT
<213> Mus musculus

<400> 55
Met His Ala Leu Gly Arg Ile Pro Thr Leu Thr Leu Leu Ile Phe Ile
 1   5   10   15
Asn Ile Phe Val Ser Gly Ser Ser Cys Thr Asp Glu Asn Gln Thr Ile
            20   25   30
Gln Asn Asp Ser Ser Ser Ser Leu Thr Gln Val Asn Thr Thr Met Ser
        35   40   45
Val Gln
    50

<210> 56
<211> 50
<212> PRT
<213> Homo sapiens

<400> 56
Met Asp Ile Asn Ala Val Leu Cys Cys Pro Pro Ile Ala Leu Arg Asn
 1   5   10   15
Leu Ile Ile Ile Thr Trp Glu Ile Ile Leu Arg Gly Gln Pro Ser Cys

```
            20                  25                  30
Thr Lys Ala Tyr Lys Lys Glu Thr Asn Glu Thr Lys Glu Thr Asn Cys
        35                  40                  45
Thr Val
    50


<210> 57
<211> 23
<212> PRT
<213> Mus musculus

<400> 57
Arg Gly Gln Pro Ser Cys Ile Met Ala Tyr Lys Val Glu Thr Lys Glu
 1               5                  10                  15
Thr Asn Glu Thr Cys Leu Gly
            20


<210> 58
<211> 49
<212> PRT
<213> Mus musculus

<400> 58
Met Asp Lys Lys Ala Leu Leu Cys Cys Phe Ser Ser Pro Leu Ile Asn
 1               5                  10                  15
Ala Val Leu Ile Thr Trp Ile Ile Lys His Arg His Leu Pro Ser Cys
            20                  25                  30
Thr Ile Ala Tyr Asn Leu Asp Lys Lys Thr Asn Glu Thr Ser Cys Leu
        35                  40                  45
Gly



<210> 59
<211> 50
<212> PRT
<213> Homo sapiens

<400> 59
Glu Arg Ile Thr Trp Val Ser Arg Pro Asp Gln Asn Ser Asp Leu Gln
 1               5                  10                  15
Ile Arg Pro Val Asp Thr Thr His Asp Gly Tyr Tyr Arg Gly Ile Val
            20                  25                  30
Val Thr Pro Asp Gly Asn Phe His Arg Gly Tyr His Leu Gln Val Leu
        35                  40                  45
Val Thr
    50


<210> 60
<211> 50
<212> PRT
<213> Mus musculus

<400> 60
Arg Asn Ile Thr Trp Ala Ser Thr Pro Asp His Ile Pro Asp Leu Gln
 1               5                  10                  15
Ile Ser Ala Val Ala Leu Gln His Glu Gly Asn Tyr Leu Cys Glu Ile
            20                  25                  30
Thr Thr Pro Glu Gly Asn Phe His Lys Val Tyr Asp Leu Gln Val Leu
        35                  40                  45
Val Pro
```

50

<210> 61
<211> 50
<212> PRT
<213> Mus musculus

<400> 61
Arg Asn Ile Thr Trp Ala Ser Thr Pro Asp His Ser Pro Glu Leu Gln
1 5 10 15
Ile Ser Ala Val Ala Leu Gln His Glu Gly Thr Tyr Thr Cys Glu Ile
20 25 30
Val Thr Pro Glu Gly Asn Leu Glu Lys Val Tyr Asp Leu Gln Val Leu
35 40 45
Val Pro
50

<210> 62
<211> 50
<212> PRT
<213> Homo sapiens

<400> 62
Pro Glu Val Asn Leu Phe Gln Ser Arg Asn Ile Thr Ala Val Cys Lys
1 5 10 15
Ala Val Thr Gly Lys Pro Ala Ala Gln Ile Ser Trp Ile Pro Glu Gly
20 25 30
Ser Ile Leu Ala Thr Lys Gln Glu Tyr Trp Gly Asn Gly Thr Val Thr
35 40 45
Val Lys
50

<210> 63
<211> 49
<212> PRT
<213> Mus musculus

<400> 63
Pro Glu Val Thr Tyr Phe Leu Gly Glu Asn Arg Thr Ala Val Cys Glu
1 5 10 15
Ala Met Ala Gly Lys Pro Ala Ala Gln Ile Ser Trp Thr Pro Asp Gly
20 25 30
Asp Cys Val Thr Lys Ser Glu Ser His Ser Asn Gly Thr Val Thr Val
35 40 45
Arg

<210> 64
<211> 49
<212> PRT
<213> Mus musculus

<400> 64
Pro Glu Val Thr Tyr Phe Pro Gly Lys Asn Arg Thr Ala Val Cys Glu
1 5 10 15
Ala Met Ala Gly Lys Pro Ala Ala Gln Ile Ser Trp Thr Pro Asp Gly
20 25 30
Asp Cys Val Thr Lys Ser Glu Ser His Ser Asn Gly Thr Val Thr Val
35 40 45
Arg

<210> 65
<211> 49
<212> PRT
<213> Homo sapiens

<400> 65
Ser Thr Cys Pro Trp Glu Gly His Lys Ser Thr Val Thr Cys His Val
 1   5   10   15
Ser His Leu Thr Gly Asn Lys Ser Leu Ser Val Lys Leu Asn Ser Gly
            20   25   30
Leu Arg Thr Ser Gly Ser Pro Ala Leu Ser Leu Leu Ile Ile Leu Tyr
        35   40   45
Val

<210> 66
<211> 47
<212> PRT
<213> Mus musculus

<400> 66
Ser Thr Cys His Trp Glu Gln Asn Asn Val Ser Ala Val Ser Cys Ile
 1   5   10   15
Val Ser His Ser Thr Gly Asn Gln Ser Leu Ser Ile Glu Leu Ser Arg
            20   25   30
Gly Thr Thr Ser Thr Thr Pro Ser Leu Leu Thr Ile Leu Tyr Val
        35   40   45

<210> 67
<211> 47
<212> PRT
<213> Mus musculus

<400> 67
Ser Thr Cys His Trp Glu Gln Asn Asn Val Ser Val Val Ser Cys Leu
 1   5   10   15
Val Ser His Ser Thr Gly Asn Gln Ser Leu Ser Ile Glu Leu Ser Gln
            20   25   30
Gly Thr Met Thr Thr Pro Arg Ser Leu Leu Thr Ile Leu Tyr Val
        35   40   45

<210> 68
<211> 27
<212> PRT
<213> Homo sapiens

<400> 68
Lys Leu Ser Leu Phe Val Val Ile Leu Val Thr Thr Gly Phe Val Phe
 1   5   10   15
Phe Gln Arg Ile Asn His Val Arg Lys Val Leu
            20   25

<210> 69
<211> 25
<212> PRT
<213> Mus musculus

<400> 69
Lys Met Val Leu Leu Gly Ile Ile Leu Leu Lys Val Gly Phe Ala Phe
 1   5   10   15
Phe Gln Lys Arg Asn Val Thr Arg Thr
            20   25

<210> 70

<211> 25
<212> PRT
<213> Mus musculus

<400> 70
Lys Met Ala Leu Leu Val Ile Ile Leu Leu Asn Val Gly Phe Ala Phe
 1   5   10   15
Phe Gln Lys Arg Asn Phe Ala Arg Thr
            20   25